UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Electric Market Design and Structure	Docket No. RM01-12-000
Avista Corporation, Bonneville Power Administration, Idaho Power Company, The Montana Power Company, Nevada Power Company, PacifiCorp, Portland General Electric Company, Puget Sound Energy, Inc., Sierra Pacific Power Company	Docket No. RT01-35-005

COMMENTS OF THE RTO WEST FILING UTILITIES ON OPTIONS FOR RESOLVING RATE AND TRANSITION ISSUES IN STANDARDIZED TRANSMISSION SERVICE AND WHOLESALE ELECTRIC MARKET DESIGN

The Federal Energy Regulatory Commission (the "Commission") has requested comments on its paper entitled "Options for Resolving Rate and Transition Issues in Standardized Transmission Service and Wholesale Electric Market Design" (the "Options Paper").[1] Avista Corporation, Bonneville Power Administration ("Bonneville"), British Columbia Hydro and Power Authority ("B.C. Hydro"), Idaho Power Company, Nevada

[1] Notice of Options Paper, Docket No. RM01-12-000 (April 10, 2002). All citations in these comments to the Options Paper are to the version posted on the Commission's Website.

Power Company, NorthWestern Energy, L.L.C., PacifiCorp, Puget Sound Energy, Inc., Portland General Electric Company and Sierra Pacific Power Company (collectively, the "Companies") [2] are jointly submitting these comments on the Options Paper. The Companies submitted their Stage 2 Filing and Request for Declaratory Order Pursuant to Order 2000 (the "Stage 2 Filing") in Docket No. RT01-35-005 on March 29, 2002. When formed, RTO West will be a nonprofit independent system operator of electric transmission facilities in the states of Washington, Oregon, Montana, Idaho, Nevada, Utah and Wyoming, and efforts are ongoing to include the provinces of British Columbia and Alberta within RTO West.

In general, the Companies believe that many, if not most, of the options discussed by the Commission are best addressed on a regional basis as detailed below. These comments respond to each of the questions posed by the Commission and provide the Commission with an understanding of how the Companies address these issues in their Stage 2 Filing. Accordingly, these comments reflect the compromises that were necessary to enable the Companies to prepare the RTO West proposal. The options the Companies recommend are those they believe will facilitate the voluntary formation of RTO West.

[2] In its April 26, 2001 order in Docket No. RT01-35-000, the Commission approved the geographic scope proposed for RTO West, which encompasses all of the Pacific Northwest within the United States and most of the Intermountain West. The Commission encouraged continued efforts to provide for Canadian participation in RTO West. B.C. Hydro was a signatory, along with the U.S. applicants, to the Companies' Stage 2 Filing and Request for Declaratory Order Pursuant to Order 2000 in Docket No. RT01-35-005. Discussions continue with representatives in the Province of Alberta.

Regional Implementation

The Companies believe regional flexibility is an essential foundation for successful voluntary RTO formation. The most significant challenge for the Companies is determining service options, pricing, and congestion management approaches that reconcile various transmission owners' existing level and quality of service at a comparable price, while enhancing opportunities for new entrants. This is particularly true given the need to combine ten utilities' transmission, each with its own company structure and approach, while simultaneously implementing new policy initiatives. All this must be accomplished without degrading existing service or creating unacceptable cost shifts among customers.

The resolution of the tension between equity among participants and the efficiency of electricity trade cannot be made in the abstract. Compromises are inherent in the development process. As a result, flexibility should be included in the Commission's final standard market design rules to permit making decisions on a regional basis where specific facts and circumstances can be used to find an acceptable solution to the problems created when moving from provision of transmission under individual company open access transmission tariffs to provision of network access type service by an RTO.

The Companies appreciate the Commission's desire to create incentives for regions to establish RTOs. However, denying a region the ability to craft its own solutions to market problems unless an RTO is in place at the time standardized transmission service and market design is implemented could result in unduly punishing a region that is working diligently to form an RTO, or imposing a less-than-optimal RTO.

It appears that the Commission's schedule for implementing standardized market design may precede the earliest possible date for RTO West commercial operations. The Companies urge the Commission to adopt implementation options that allow for regional differences irrespective of the date an RTO begins operations.

The Companies believe that the network access type of service proposed by the Commission cannot be effectively implemented on a company-by-company basis. The Commission should implement standard market design policies for the RTO West region through RTO West. The Companies have submitted a proposal that will implement the Commission's policies in their Stage 2 Filing and urge the Commission to proceed on that basis.

Access Charge Options

The following comments on access charges assume that transmission service is being provided by an RTO that meets the minimum characteristics and functional requirements of Order 2000 and that access charges are the primary method used to collect the transmission owners' embedded costs.[3]

[3] The Commission notes that either the Access Right (the right to move power between two points) or the Transmission Right (the right to a predetermined price) could be used as a basis for recovery of embedded costs. Options Paper at 4. The remainder of the Options Paper discusses options for collecting embedded costs through an access charge. Options Paper at 5. The Companies agree that access charges should recover the bulk of embedded costs. The Commission should allow each RTO the flexibility to design the method of recovering embedded costs.

1. Who pays the access charge for deliveries within the transmission provider's system?

The Stage 2 Filing proposes a variant of a license-plate, load-based access fee for deliveries within the RTO West system.[4] This is generally consistent with "*Option 2: Access charge is paid by customers that take power off the grid*" as described in the Options Paper.[5] Within the area to be covered by RTO West, an active bilateral market has existed for many years. Trades at locations such as Mid-C[6] occur as late as 20 minutes before the operating hour. Many transactions use trading hubs as intermediate points for delivery between parties. A load-based access charge approach eliminates the imposition of multiple access fees on such trades (which might otherwise hamper trade within RTO West). It also assures recovery of embedded costs of the system from all customers that take power off the RTO West system, regardless of whether those customers have transmission rights.

The Companies believe that the need for flexibility to design pricing methodologies that enable voluntary formation of RTOs outweighs any need for national uniformity in pricing. The Companies urge the Commission to permit RTOs the

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[4] All references to the pricing proposal for RTO West are to the methodology proposed for the Company Rate Period (the eight years following the commencement of RTO West commercial operations). *See* filing letter to Stage 2 Filing at 30. The Options Paper seems to describe license plate rates as an acceptable method for recovering the transmission revenue requirement of multiple transmission owners within an RTO system. Options Paper at 4 and n.6. The Companies agree with the Commission that license plate rates are an acceptable mechanism for cost recovery and believe that a transfer charge mechanism like that proposed for RTO West can be used within a license plate design to reflect long-term wheeling arrangements by transmission owners on each others' systems and to avoid cost shifts.

[5] The pricing proposal described in the Stage 2 Filing includes a "backstop" mechanism designed to guard against under-recovery of embedded costs that may not be consistent with Option 2.

[6] Mid-C is the Mid-Columbia trading hub in Eastern Washington.

flexibility to design pricing methodologies that support compromises among the owners and other stakeholders within the RTO's scope.

2. Should the access charge apply to exports and wheel throughs?

The Commission has identified four options with respect to exports and wheel throughs: apply an access charge, not apply an access charge, apply an annual revenue adjustment to account for exports, or apply a lower access charge for exports and wheel throughs than for deliveries within the RTO. The Companies' Stage 2 Filing incorporates Option 1, applying an external interface access charge to all exports and wheel throughs.[7] The Companies believe this charge is essential, at least during a transition period. The pricing methodology in the Stage 2 Filing reflects an equitable compromise, which rests in substantial part on the expectation that revenues generated from exports and wheel throughs will significantly offset lost revenues from short-term use. Eliminating the revenues from deliveries out of RTO West and shifting the cost of such service onto certain loads within RTO West would be inequitable and would likely discourage voluntary participation in RTO West.

To mitigate the economic inefficiency that might result from the access charges applied to exports or wheel throughs, the RTO West proposal provides for the sale of annual, monthly, weekly and daily blocks of export access and allows purchasers to resell access rights to other parties. RTO West is also empowered to discount the charges for external interface access to maximize the revenue stream from this source.

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[7] The charge that applies to exports and wheel throughs under the RTO West pricing proposal (known as the "External Interface Access Fee") could apply to any transaction scheduled to a designated external interface, even if the energy does not leave the RTO West system.

The Stage 2 Filing states that the RTO West proposal has a long-term goal to eliminate the charges for use of external interfaces through a transfer payment type of reciprocity agreement with the other Western RTOs. Such transfer payment reciprocity is similar to that described in the Options Paper as *"Option 3: The access charge would not apply to individual transactions. But, there would be an annual revenue adjustment."* In fact, RTO West filing utility representatives, along with WestConnect and California ISO representatives, have engaged in pricing reciprocity discussions. They have considered, and continue to consider, options such as inter-RTO transfers. These discussions have recognized the inherent complexities of such a mechanism.

For RTO West, typically a net exporter to other areas of the Western Interconnection, net transfer payments from the other RTOs would not fully replace the revenues lost when access charges for exports are netted or eliminated.[8] Similarly, for an RTO that is a net importer, transfer payments by the RTO based on net inter-RTO flows would create a revenue shortfall for that RTO. The complexity of an inter-RTO transfer payment scheme must be fully considered before it is adopted because, among other factors, there will not be a one-to-one correspondence among parties exporting from and importing to neighboring RTOs.[9] A transfer payment arrangement that is not carefully

[8] The RTO West pricing methodology uses external interface access revenues to help offset the revenue recovery target based on lost revenues from short-term use. Unless the second funding source – congestion management surpluses – raises sufficient revenues to meet the revenue recovery target, elimination of the revenues from exports and wheel throughs would trigger the backstop mechanism. That in turn would require RTO to implement a charge or set of charges to recover revenues to fund the revenue recovery target.

[9] For example, if reciprocity transfer payments between RTOs were derived from a simple net differential between each RTOs' export transactions to the other RTO, each RTO would have to develop a complex series of internal transfers to allocate revenues and costs to avoid cost shifts between loads within an RTO or among RTOs. *See* example attached as Exhibit A showing the reconciliation needed to avoid cost shifts between two RTOs with two transmission owners each.

designed could inadvertently create opportunities for charge avoidance and for cost shifts among loads and between loads and wheeling transactions.

3. Is the charge billed based on peak load or actual usage?

With the RTO West license-plate pricing approach, billing determinants are to be established by each transmission owner on a company-specific basis. Of the alternatives presented in the Options Paper, the Companies would be best able to support Option 1 (monthly peak) providing for an access charge to loads within the RTO. As the Options Paper points out, monthly peak billing determinants are consistent with the billing determinants used for Network Integration Service under the current *pro forma* tariff and are consistent with the goal for RTO West to minimize cost shifts. Option 2 (annual peak) is particularly inappropriate for a region such as RTO West, where part of the region is summer peaking and part is winter peaking. Option 3 (MWh) could be an acceptable billing determinant for export charges with the modifications discussed in the previous section of these comments (addressing whether access charged should apply to exports and wheel throughs).

Because a transmission owner's revenue requirement is the factor to be stabilized to minimize cost shifting among the customers of a transmission owner, the billing determinants used to set one Company rate need not be the same as those used to set another Company rate.[10] Forcing all Company rates to be calculated using a common billing determinant may create a cost shift among the pre-existing transmission service

[10] The variation of billing determinants and rate-setting practice for transmission service arises for two reasons. First, there are still a number of transmission service agreements in place that pre-date Order No. 888. Second, RTO West will include at least two major transmission owners that are not "public utilities" as defined under the Federal Power Act. The rate setting authority of Bonneville is separately

customers of a given Company. Additionally, there is the matter of the transfer charge for pre-existing contracts that are converted to RTO West service, where the billing determinant may be contract demand. Moreover, the RTO West pricing proposal adopts a modified "*Option 3: Bill the access charge for each MWh used"* with respect to the External Interface Access Fee. (If the fee is paid on an hourly basis, it is for MWh. The fee also may be paid on an annual, monthly, or weekly MW basis.) The Companies believe it may be more effective for the Commission to address billing determinants and cost allocation in individual RTO tariff filings where specific transition problems and pre-existing circumstances can be considered.

Transition to Service Under Revised Pro Forma Tariff

The transition from existing transmission service to service under the revised *pro forma* tariff should be designed to meet regional needs. For RTO West, achieving "approximately the same level and quality of service…previously received"[11] means dealing with a number of challenging issues: (1) a large number of existing agreements are used to directly and indirectly integrate hydro-thermal operations within the RTO West territory, (2) the flexibility built into these pre-existing agreements to accommodate integrated operations cannot be replicated with fixed strips of transmission rights[12] and (3) the complexity of combining both jurisdictional and non-jurisdictional transmission

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defined in federal legislation, and B.C. Hydro is subject to the authority of the British Columbia Utilities Commission.

[11] Options Paper at 10.

[12] This is true whether these are the Financial Transmission Options proposed by RTO West or the obligation type of financial transmission rights proposed in the Commission's Working Paper on Standardized Transmission Service and Wholesale Electric Market Design issued March 15, 2002.

owners within RTO West.[13] As a result, trade-offs must be made to develop a workable transition.

These trade-offs can best be made in the context of RTO West formation. As the Options Paper suggests under "*Option 3: Allow regional variations*," an RTO would submit, as part of its tariff, a plan for managing pre-existing transmission service for wholesale customers and bundled retail customers using market mechanisms for clearing congestion.[14] The Companies included such a plan for RTO West in their Stage 2 Filing, to balance the needs of new market participants and existing transmission rights holders. Just as importantly, this approach facilitates the voluntary formation of RTO West.

The Commission's first two options for transition of customers to revised *pro forma* tariff service are inconsistent with the RTO West proposal. Many of the Companies believe that conversion to the new Network Access Service should be voluntary for all existing customers with long-term contracts, including customers taking service under a current open access transmission tariff. The RTO West proposal is based on this principle. Instead of forcing conversion of pre-existing agreements and obligations, RTO West will provide a Non-Converted Transmission Service to transmission owners to allow them to honor their pre-existing agreements and

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[13] With respect to Transmission Rights (as protection from congestion charges), the Commission's proposed Network Access Service appears to be more similar to a point-to-point type service. While it allows scheduling flexibility, it fails to provide the protection from congestion charges provided under the current *pro forma* tariff Network Integration Service (and other pre-existing transmission service agreements) when network loads rely on multiple points of receipt. The Companies therefore respectfully urge the Commission to include an alternative that would retain the flexibilities and protections these forms of service provide.

[14] It is unclear how the regional scope required for congestion clearing and independent market operation could be effectively implemented by a single transmission owner.

obligations. From the viewpoint of the customer relying on a pre-existing transmission agreement, the service rendered is the same as existed before RTO West formation. RTO West's management of the system, however, will be based on actual system flows and will use redispatch to clear congestion, manage line loadings and maintain system reliability. RTO West also will have the authority to develop incentives to encourage contract conversion.

Allocation of Transmission Rights

The Companies believe that Commission policy governing allocation of transmission rights is part and parcel of the transition to service under a revised *pro forma* tariff. The Companies believe that regional variation is critical in this arena as well.

1. Should historical customers get initial Transmission Rights?

Historical customers, i.e., those with whom transmission owners have pre-existing agreements and load service obligations, must receive transmission rights when service begins under the revised *pro forma* transmission tariff so that they are not exposed to new costs for their existing service. Without transmission rights, the historical users may face a price shock from exposure to congestion costs. The size of this cost increase and the resulting economic dislocation cannot be reasonably estimated until an RTO actually begins to operate and a history of nodal clearing prices and congestion costs is accumulated. For this reason, historical users must receive transmission rights to protect against these unknown costs.

The RTO West proposal fulfills the Commission's objectives of pricing reform and operational scope through a regional solution crafted to address the specific problems

faced by RTO West participants. The RTO West proposal allows for voluntary conversion of existing contracts and obligations, with customers receiving transmission rights in the form of Financial Transmission Options ("FTOs") and the use of Catalogued Transmission Rights ("CTRs") for customers that do not wish to convert their pre-existing contract rights to FTOs.[15] Like FTOs, CTRs will provide a financial hedge against congestion costs. Straight conversion of historic rights into uniform, fixed strips of transmission rights may result in substantial over-allocation. By pooling the pre-existing obligations of its transmission owners, RTO West will be able to take advantage of flexibility and diversity within and between different Companies' CTRs in ways the Companies could not when managing their individual systems. This is an example of an appropriate regional variation that the Commission should support.

2. If existing customers are given the initial conversion rights, how should Transmission Rights be allocated?

The RTO West proposal is generally consistent with "*Option 1: Assign rights based on existing contract rights and historical usage.*" The Stage 2 Filing proposes to allocate transmission rights, either as FTOs (which are tradable) or as CTRs (which are not tradable). Allocating transmission rights based on existing contracts (including the current *pro forma* tariff Network Integration Service), as the Stage 2 Filing proposes, preserves existing flexibility to accommodate variable dispatch of resources from multiple points of receipt. Allocating revenues from the sale of transmission rights is not consistent with the RTO West proposal.

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[15] For a more detailed discussion of CTRs and FTOs, see "Description of RTO West Congestion Management Proposal," Attachment F to the Stage 2 Filing.

The RTO West approach deals with potential over-allocation of pre-existing agreements and obligations by pooling historical rights to take advantage of a large hydro-thermal system and seasonal and usage diversity among the holders of pre-existing transmission rights. RTO West will also manage exposure to over-allocation by prohibiting the secondary trading of unused CTRs.[16] By capturing diversity and restricting CTR trading, RTO West will be able to issue additional FTOs up to the full capacity of the transmission system. As experience grows and a congestion cost record is accumulated, individual transmission customers will be able to make informed choices about the conversion of their pre-existing agreements and obligations to network access type of service. As suggested by the Options Paper, an annual update of CTRs will be required to adjust for load growth and other changes.

The Companies believe the Commission should allow appropriate regional variation in the allocation of transmission rights. Variations among neighboring RTOs' allocation procedures should be permitted to reflect regional differences so long as customers have the opportunity to obtain transmission rights that enable them to transfer energy from one RTO to another.

Long-Term Generation Adequacy

The Companies did not address long-term generation adequacy in their Stage 2 Filing for RTO West and it was not included in the minimum characteristics and functional requirements of Order 2000. As the Commission notes in the Options Paper,

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[16] *See* Section C.4 of Attachment F to the Stage 2 Filing. Although secondary trading in CTRs is not permitted, RTO West will provide incentives for those holding CTRs to voluntarily "lock down" their schedules before the day ahead. The increased operational certainty provided by early lock down will

there are significant disagreements over what mechanisms should be used to ensure long-term generation adequacy within a region and whether such mechanisms should be administered at the state, regional or federal level. While the Companies understand the importance of addressing this issue, the Companies believe the states and existing regional entities[17] should administer generation adequacy measures. With the Pacific Northwest's long history of decentralized markets and bilateral energy trade, the states, regional entities and provincial regulators with service or planning obligations within the region are best positioned to establish and enforce generation adequacy standards. In addition, Bonneville is concerned that its unique statutory obligations and power sale contractual relationships with load serving entities in the region complicate the allocation and application of a uniform national generation adequacy standard.

The Commission should encourage states and existing regional entities to initiate cooperative efforts to ensure generation adequacy. RTOs should not be forced to serve loads with imbalance energy.[18] States are responsible for establishing a legal structure to assure that energy requirements for state residents are met through the provision of energy and demand-side options, including load-shedding procedures. States that choose

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better enable RTO West to assess how much capacity will become available on the system and release FTOs supported by that capacity. *See id.* at Section C.3.h.

[17] For example, Bonneville and the Northwest Power and Conservation Planning Council are regional entities within the RTO West area that have certain planning and load service responsibilities. In describing the states' role with respect to generation adequacy, the Companies' intend the term "states" to be interpreted broadly, rather than encompassing only state utility regulatory commissions.

[18] Although the Stage 2 Filing did not directly address generation adequacy, the Companies' proposal for RTO West provides protections against improper reliance on the balancing energy market for load service by requiring balanced schedules in both day-ahead and real-time. RTO West should have a role in the procurement of resources only for clearing congestion, managing real-time imbalance and providing other required ancillary services. The RTO West proposal appropriately leaves the responsibility to plan for the region's future generation needs to state, regional and provincial bodies, which must adopt

to move toward deregulation of some or all retail service should provide for suppliers of last resort for all direct access loads.[19] It is appropriate for the states and RTOs to work together to assure comparable standards in all states within a region.

Very different views exist among the states and provinces to be served by RTO West regarding the appropriate level of resources and the types of resource options a load serving entity should pursue. Moreover, the Companies believe that although the questions raised by the Commission are excellent, more work should be done to identify and consider options. This work must involve affected states, provinces and regional entities.

The Companies believe that the options described in the Options Paper to address generation adequacy are inappropriate for the RTO West region. Option 1, standing alone, may describe the appropriate role for an RTO, but it does not assure generation adequacy. Options 2 through 4 implicitly assume a centralized pool akin to the tight power pools that have historically operated in the Northeast. Such centralized options for enforcing long-term generation adequacy may be necessary in a region adopting a centralized pool market. However, in other regions where decentralized energy markets prevail, these options are inappropriate and intrude into the jurisdictional purview of state, regional and provincial bodies.

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clear, compatible policies. In addition, the Companies have stated their intent to address Scheduling Coordinator defaults in subsequent filings. *See* filing letter to Stage 2 Filing at 25-6.

[19] *See* filing letter to Stage 2 Filing at 26, n. 24.

Furthermore, in the RTO West region, operating reserves are a reliability product used for contingencies only, and not a purchase option on generation. Treatment of reserves as an energy option would result in significantly higher costs for customers served by RTO West, as much of the region's reserve requirement is currently carried on fuel-limited hydro resources.[20] Adopting Option 5, *Capacity obligations for operating reserves only – forward reserves contracts* will not solve the problem of long-term generation adequacy for the RTO West region. The Companies also are concerned that the use of Option 5 could cause a reliability risk for the RTO by depleting operating reserves to meet base energy needs under the worst system conditions, leaving the system without adequate reserves for unit outages.

The Companies believe that it is premature to adopt any specific solution to the broad question of generation adequacy. The Commission should defer consideration of this matter until additional work can be done with appropriate regional bodies and specific tariffs are filed by individual RTOs. The Commission should actively support regional work to address long-term generation adequacy. The approach taken by each region should be adapted to its needs, the nature of its electricity markets and the characteristics of its physical assets.

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[20] These hydro resources are capable of meeting the operating reserve demands as required by the control area, but the reserve provider must often reduce output from the resource shortly after the contingency event by purchasing power in the market, otherwise non-power operational and stream-flow requirements (such as flood control, navigation and fish-recovery measures) would be violated. As long as the operating reserve energy demands are somewhat infrequent and random, the capacity and energy risk premium this type of operation presents to providers is relatively low. If, however, the RTO were to make operating reserves available as an economic call on energy to serve load in the absence of a unit outage (which would seem to be the result if Option 5 is to serve adequacy), the cost exposure to those providers to recover from such events would be increased and the potential for sustained demand for these "reserves" would reduce the amount of capacity that could be offered in any given period because the sustained fuel demands would jeopardize the non-power operations of these projects under many more hydro conditions.

Conclusion

During Stage 2 of the RTO West development process, the Companies and participants in the RTO West stakeholder process debated many of the transmission rate and transition issues discussed in the Options Paper. The Companies recommend that in its notice of proposed rulemaking, the Commission provide guidance for RTOs on these issues but allow for regional variations that are tailored to the needs and circumstances of each region. Specific regional variations proposed by the Companies in their Stage 2 Filing for RTO West should be examined in detail when the Commission reviews the Stage 2 Filing.

Dated this 1st day of May, 2002.

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PORTLAND GENERAL ELECTRIC COMPANY

PUGET SOUND ENERGY, INC.

NEVADA POWER COMPANY and
SIERRA PACIFIC POWER COMPANY

Exhibit A

Illustrative Example of Inter-RTO Transfer Payments In Lieu of Export Charges

Introduction

Replacement of export charges with annual revenue adjustments appears conceptually straightforward, but the details are complicated, even in the abstract. The Companies provide the following example to illustrate this complexity. The example does not attempt to reflect the actual structures of RTO West, WestConnect or the California ISO. Given the complexity of this issue, the Companies encourage the Commission to allow the region the flexibility to negotiate an appropriate solution.

The examples below assume that there are two neighboring RTOs – RTO X and RTO Y. In Option 1, each RTO has an export charge and receives export revenues. In Options 2 and 3, inter-RTO transfer payments replace the export charge.

Analysis of Transactions

Option 1

Export Fees

The export charge is paid by the importing Transmission Owner ("TO"). Export revenues are credited against the revenue requirements of the entities owning transmission facilities used for the exports. The credit maintains the historic revenue requirement to be paid by each Company's load before the RTO, thereby avoiding cost shifts to loads that could occur as result of changes in pricing under an RTO. Historic and current exports among transmission owners are assumed to remain constant and it is assumed that each RTO allocates revenues to transmission owners for use of their transmission facilities for exports.

There are two transactions. The facilities contributed by Transmission Owner A (TO "A") within RTO X are used for exports to Transmission Owner B (TO "B") within RTO Y. The export fee charged to TO "B" is $10M. The facilities contributed by Transmission Owner C (TO "C") within RTO Y are used for exports to Transmission Owner D (TO "D") within RTO X. The export fee charged to TO "D" is $5M.

Option 1 Export Fees	
RTO X	RTO Y
TO "A" in RTO X exports to TO "B" in RTO Y Export fee charged to TO "B" is $10M[1]	TO "B" in RTO Y imports from TO "A" in RTO X
TO "D" in RTO X imports from TO "C" in RTO Y	TO "C" in RTO Y exports to TO "D" in RTO X Export Fee charged to TO D is $5M

Option 2

RTO to RTO Transfer Payments Without Netting

In this case, the RTOs pay each other for each export. No netting occurs. RTO Y pays RTO X the transfer payment of $10M. RTO X pays RTO Y the transfer payment of $5M. Upon receipt of the payment, RTO X allocates the $10M it receives to TO "A" for use of TO "A's" facilities. RTO Y allocates the $5M it receives to TO "C" for use of TO "C's" facilities. Upon allocation, the loads of TO "A" and TO "C" are made whole.

Option 2 Inter-RTO Transfer Payments Without Netting		
	RTO X	RTO Y
1	TO "A" in RTO X exports to TO "B" in RTO Y	TO "C" in RTO Y exports to TO "D" in RTO X
2	RTO X pays RTO Y the $5M transfer payment that was collected from TO "D" in RTO X	RTO Y pays RTO X the $10M transfer payment that was collected from TO "B" in RTO Y
3	RTO X allocates $10M to TO "A"	RTO Y allocates $5M to TO "C"

[1] Recall the assumption stated above that the importing TO pays the export charges to the RTO from which the transaction originates.

Option 3

RTO to RTO Transfer Payments

With Netting

Part A: Inter-RTO Transfer. In this case, the RTOs do not pay each other for each export. At the end of a chosen time period the RTOs net the exports. The RTO with more imports than exports will make a transfer payment to the net exporting RTO. In this option, the $5M RTO X owes RTO Y offsets $5M of the $10M RTO Y owes RTO X. Therefore, RTO Y makes a net $5M transfer payment to RTO X.

Option 3 – Part A Inter-RTO Transfer Payments With Netting Inter-RTO Transfer		
	RTO X	RTO Y
1	TO "A" in RTO X exports to TO "B" in RTO Y	TO "C" in RTO Y exports to TO "D" in RTO X
2	RTO X pays RTO Y no cash as its exports exceeded its imports.	RTO Y pays RTO X $5M as its imports exceeded its exports ($10M imported - $5M exported = $5M in export fees that are not offset by exports to RTO X)

Part B: RTO X Transfers. RTO X allocates the $5M it receives from RTO Y to TO "A". However, TO "A" has not been fully compensated for its historical revenues. Without further compensation, TO "A" will receive a revenue short fall (cost shift) of $5M, and TO "D" will receive a windfall of $5M because it was able to import without having to pay for the transmission used for the import. Therefore, RTO X must require TO "D" to pay it a $5M transfer charge. Upon payment of the transfer charge, RTO X will allocate the $5M to TO "A." This places TO "A" and TO "D" in the same financial positions they would have been had RTO X not been created, and had RTO X not agreed to net export transactions with RTO Y. Upon allocation TO "A's" loads are made whole, and TO "D's loads are not advantaged.

Option 3 – Part B Inter-RTO Transfer Payments With Netting RTO X Transfers		
1	TO "A" in RTO X exports to TO "B" in RTO Y	TO "C" in RTO Y exports to TO "D" in RTO X
2	RTO X receives the $5M netted export fee payment from RTO Y	
3	RTO X allocates $5M to TO "A" for TO "A's" historical levels of exports	
4	TO "A" is short $5M in comparison to historic levels of export ($10M - $5M = $5M). TO "D" has paid nothing for import from RTO Y	
5	RTO X assesses a $5M transfer fee against TO "D", and RTO X transfers the funds to TO "A"	

Part C: RTO Y Transfers. RTO Y receives no cash from RTO X. RTO Y has no cash to allocate to TO "C." As a result, TO "C" has not been fully compensated for its historical revenues. Without further compensation, TO "C" will receive a revenue short fall (cost shift) of $5M, and TO "B" will receive a windfall of $10M because it was able to import without having to pay for the transmission used for the import. Therefore, RTO Y must require TO "B" to pay it a $10M transfer charge. Upon payment of the transfer charge, RTO Y will allocate the $5M to TO "C." This places TO "C" and TO "B" in the same financial positions they would have been had RTO Y not been created, and had RTO Y not agreed to net export transactions with RTO X.

Option 3 – Part C Inter-RTO Transfer Payments With Netting RTO Y Transfers		
1	TO "A" in RTO X exports to TO "B" in RTO Y	TO "C" in RTO Y exports to TO "D" in RTO X
2	RTO Y receives no cash from RTO X and pays $5M to RTO X	
3	RTO Y has no cash to allocate to TO "C" for TO "C's" historical levels of exports	
4	TO "C" is short $5M in comparison to historic levels of export. TO "B" has paid nothing for import from RTO Y	
5	RTO Y assesses a $10M transfer fee against TO "B", and RTO Y transfers $5M of the funds to TO "C" and RTO Y makes a $5M transfer payment to RTO X (see line 2)	

Conclusion

There are a number of methods for replacing export charges with inter-RTO transfer payments . Some are more complicated than others to implement. RTOs need the flexibility to craft a methodology that satisfies the needs of each RTO.